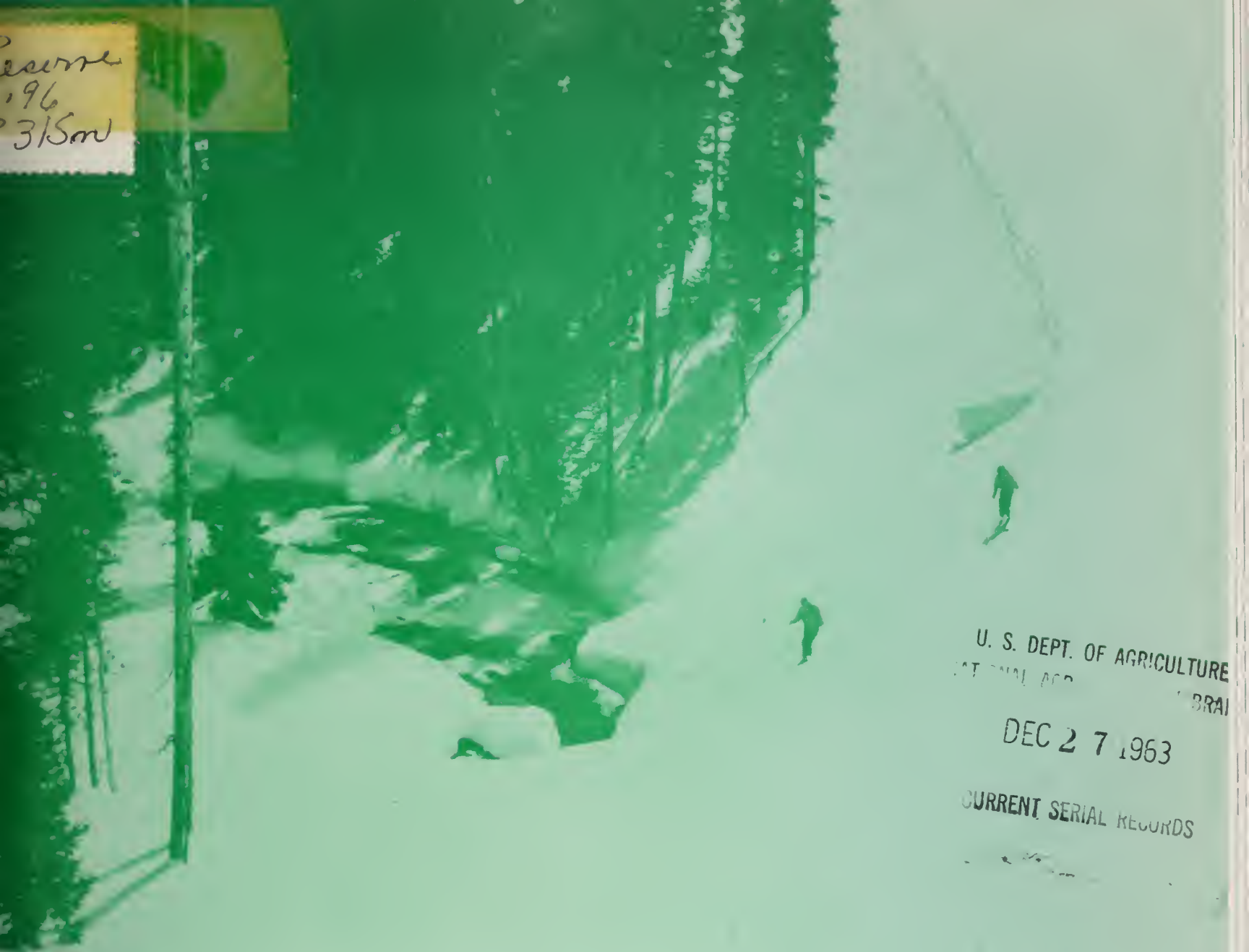


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Do not assume content reflects current scientific knowledge, policies, or practices.





**WATER SUPPLY OUTLOOK**  
and  
**FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS**  
for  
**ARIZONA**

UNITED STATES DEPARTMENT of AGRICULTURE--SOIL CONSERVATION SERVICE,  
SALT RIVER VALLEY WATER USERS ASSOCIATION  
and  
ARIZONA AGRICULTURAL EXPERIMENT STATION

Data included in this report were obtained by the agencies  
named above in cooperation with the Federal, State and pri-  
vate organizations listed on the last page of this report.

||||||| AS OF |||||||  
**APR. 1, 1963**

# UNITED STATES DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE

## To Recipients of Water Supply Outlook Reports:

The climate of the cultivated and populated areas of the West is characterized by relatively dry summer months. Such precipitation as occurs falls mostly in the winter and early spring months when it is of little immediate benefit to growing crops. Most of this precipitation falls as mountain snow which stays on the ground for months, melting later to sustain streamflow during the period of greatest demand during late spring and summer. Thus, nature provides in mountain snow an imposing water storage facility.

The amount of water stored in mountain snow varies from place to place as well as from year to year and accordingly, so does the runoff of the streams. The best seasonal management of variable western water supplies results from advance estimates of the streamflow.

A snow survey consists of a series of about ten samples taken with specially designed snow sampling equipment along a permanently marked line, up to 1000 feet in length, called a snow course. The use of snow sampling equipment provides snow depth and water equivalent values for each sampling point. The average of these values is reported as the snow survey measurement for a snow course.

Snow surveys are made monthly or semi-monthly beginning in January or February and continue through the snow season until April, May or June. Currently more than 1400 western snow courses are measured each year. These measurements furnish the key data for water supply forecasts.

Streamflow forecasts are obtained by a comparison of total or maximum snow accumulation, as measured by snow water equivalent, to the subsequent spring and summer or snowmelt season runoff over a period of years. The snow water equivalent measured in selected snow courses provides most of the index to the streamflow forecast for the following season. More accurate forecasts are usually obtained when other factors such as soil moisture, base flow and spring precipitation are considered and included in the forecast procedure. Early season forecasts assume average climatic conditions through the snowmelt season.

Listed below are the Federal-State-Private Cooperative Snow Survey and Water Supply Forecast reports available for the West which contain detailed information on snow survey measurements, streamflow forecasts, reservoir storage, soil moisture and other guide data to water management and conservation decisions. Soil Conservation Service Reports may be secured from Water Supply Forecasting Unit, Soil Conservation Service, P.O. Box 4170, Portland 8, Oregon.

## PUBLISHED BY SOIL CONSERVATION SERVICE

<u>REPORTS</u>	<u>ISSUED</u>	<u>LOCATION</u>	<u>COOPERATING WITH</u>
RIVER BASINS			
WESTERN UNITED STATES	MONTHLY (FEB.-MAY)	PORTLAND, OREGON	ALL COOPERATORS
STATES			
ALASKA	MONTHLY (MAR.-MAY)	PALMER, ALASKA	ALASKA S.C.D.
ARIZONA	SEMI-MONTHLY (JAN.15 - APR.1)	PHOENIX, ARIZONA	SALT R. VALLEY WATER USERS ASSOC. ARIZ. AGR. EXP. STATION
COLORADO AND NEW MEXICO	MONTHLY (FEB.-MAY)	FORT COLLINS, COLORADO	COLO. STATE UNIVERSITY COLO. STATE ENGINEER N. MEX. STATE ENGINEER
IDAHO	MONTHLY (JAN.-JUNE)	BOISE, IDAHO	IDAHO STATE RECLAMATION ENGINEER
MONTANA	MONTHLY (JAN.-JUNE)	BOZEMAN, MONTANA	MONT. AGR. EXP. STATION
NEVADA	MONTHLY (JAN.-MAY)	RENO, NEVADA	NEVADA DEPT. OF CONSERVATION AND NATURAL RESOURCES - DIVISION OF WATER RESOURCES
OREGON	MONTHLY (JAN.-JUNE)	PORTLAND, OREGON	OREG. STATE UNIVERSITY OREGON STATE ENGINEER
UTAH	MONTHLY (JAN.-JUNE)	SALT LAKE CITY, UTAH	UTAH STATE ENGINEER
WASHINGTON	MONTHLY (FEB.-JUNE)	SPOKANE, WASHINGTON	WN. STATE DEPT. OF CONSERVATION
WYOMING	MONTHLY (FEB.-JUNE)	CASPER, WYOMING	WYOMING STATE ENGINEER

## PUBLISHED BY OTHER AGENCIES

<u>REPORTS</u>	<u>ISSUED</u>	<u>AGENCY</u>
BRITISH COLUMBIA	MONTHLY (FEB.-JUNE)	WATER RIGHTS BR., DEPT. OF LANDS, FORESTS AND NATURAL RESOURCES, PARLIAMENT BLDG., VICTORIA, B.C., CANADA
CALIFORNIA	MONTHLY (FEB.-MAY)	CALIF. DEPT. OF WATER RESOURCES, P.O. BOX 388, SACRAMENTO, CALIF.

**WATER SUPPLY OUTLOOK**  
and  
**FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS**  
for  
**ARIZONA**

(Salt, Verde, Gila and Part of Lower Colorado River Basin)

*Report prepared by*

RICHARD W. ENZ...SNOW SURVEY SUPERVISOR  
SOIL CONSERVATION SERVICE  
ROOM 6029 FEDERAL BUILDING  
PHOENIX 25, ARIZONA

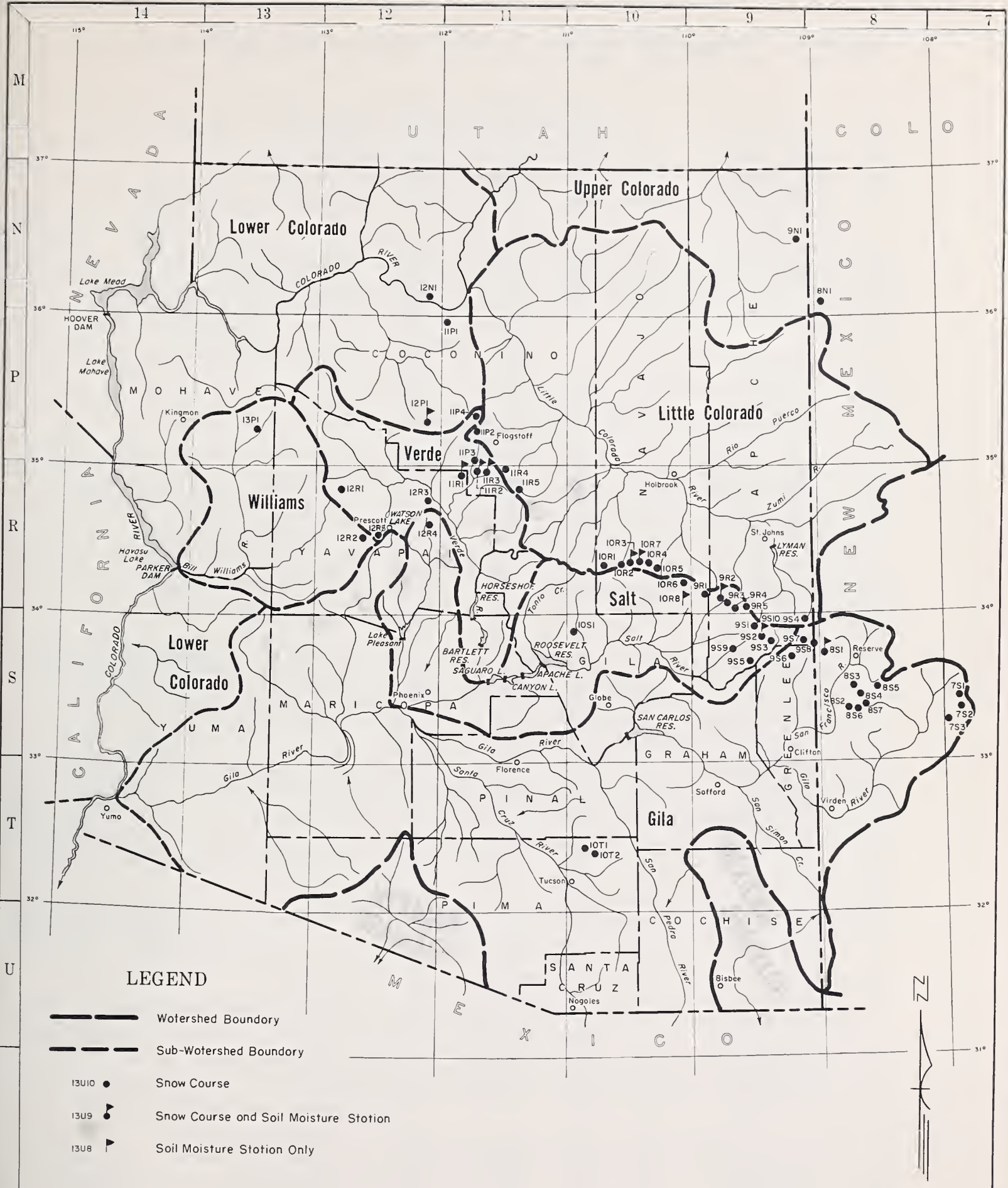
*Issued by*

ROBERT V. BOYLE  
STATE CONSERVATIONIST  
SOIL CONSERVATION SERVICE

VICTOR I. CORBELL  
PRESIDENT  
SALT RIVER VALLEY WATER USERS ASSOCIATION

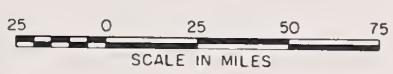






# ARIZONA COOPERATIVE SNOW SURVEYS Snow Courses and Sub-Watersheds

JANUARY 1963



# INDEX to SNOW COURSES and SOIL MOISTURE STATIONS

NUMBER **	NAME	SEC	TWP	RGE ***	ELEVATION	RIVER BASIN
11P3	Antelope Park	29	19N	8E	7300	Verde.....Discontinued
9S1	Baldy (p)	28	7N	27E	9125	Salt-Little Colorado
10T1	Bear Wallow	6	12S	16E	8100	Gila
9S6	Beaver Head	13	4N	30E	8000	Salt-Frisco
9S3	Big Lake Knoll	2	5N	28E	8800	Salt-Frisco-Little Colorado-- Discontinued
7S3	Black Canyon	8	13S	11W****	6790	Gila.....Discontinued
9S10-*	Black River Divide	11	6N	27E	9100	Salt-Little Colorado
12N1	Bright Angel	34	33N	3E	8400	Lower Colorado
12R1	Camp Wood	3	16N	6W	5700	Williams-Verde
10R3-M	Canyon Creek	18	11N	15E	7500	Salt-Little Colorado--Replaced by 10R7-M
10R7-M	Canyon Creek #2	18	11N	15E	7500	Salt-Little Colorado
11R2-M	Casner Park	19	18N	8E	6930	Verde
12P1-M	Chalender	27	22N	3E	7100	Verde
10R8-*	Corduroy Creek	Lat. 34°07'N.	Long. 110°08'W.	§	6000	Salt
9S9	Corn Creek (p)	Lat. 33°45'N.	Long. 109°45'W.	§	7730	Salt.....Not Read
8S3	Corner Mountain	7	10S	17W****	8850	Gila-Frisco....Not Read
9S7	Coronado Trail	26	5N	30E	8000	Salt-Frisco
10R2	Elk	31	11N	14E	7600	Salt-Little Colorado..Discontinued
10R6	Forest Dale	2	9N	21E	6430	Salt-Little Colorado
11P2	Fort Valley	22	22N	6E	7350	Verde-Little Colorado
9R5	Ft. Apache	18	7N	27E	9160	Salt-Little Colorado
8S1-M	Frisco Divide	31	6S	20W****	8000	Frisco-Gila
12R4	Gaddes Canyon	11	15N	2E	7600	Verde-Agua Fria
10R5	Gentry	36	11N	15E	7600	Salt
11P1	Grand Canyon	21	30N	4E	7500	Lower Colorado
11R5	Happy Jack	30	17N	9E	7630	Verde
10R4	Heber (p)	28	11N	15E	7600	Salt-Little Colorado
8S6	Ice King	6	11S	18W	8020	Frisco-Gila
7S2	Inman	6	11S	10W****	7800	Gila
12R2	Iron Springs	22	14N	3W	6200	Williams-Verde
9S2	Maverick Fork (p)	13	6N	27E	9050	Salt
9R4	McKay Peak	13	7N	24E	8250	Salt.....Not Read
9R2-M	McNary	14	8N	23E	7200	Salt-Little Colorado
9R1	Milk Ranch	28	8N	23E	7000	Salt
12R3	Mingus Mountain	3	15N	2E	7100	Verde-Agua Fria
8S2	Mogollon	2	11S	19W****	7000	Frisco-Gila
11R4	Mormon Lake	13	18N	8E	7350	Verde-Little Colorado
11R3-M	Mormon Mountain	14	18N	8E	7500	Verde
11R1-M	Munds Park	7	18N	7E	6500	Verde
8S4	N-Bar Lake	16	10S	17W****	8600	Gila.....Not Read
8S5	Negrito	6	10S	16W****	8200	Gila.....Not Read
9S4	Nutriso	23	6N	30E	8500	Salt-Frisco-Little Colorado
9S5	Pacheta	At Town of Maverick, Ariz.			7800	Salt
8S7	Redstone Trail	5	11S	18W	8600	Frisco-Gila
9N1	Roof Butte	15	8N	6W****	8500	Little Colorado-Not Read
10T2	Rose Canyon	15	12S	16E	7300	Gila
11P4	Snow Bowl	36	23N	6E	10,260	Verde
9S8	State Line	6	6S	21W****	8000	Gila-Frisco
7S1	Taylor Creek	20	10S	10W****	7850	Gila
9R3	Trout Creek	5	7N	24E	6400	Salt.....Not Read
8N1	Washington Pass	Lat. 36°05'N.	Long. 108°50'W.		8600	Little Colorado-Not Read
12R5	White Spar	19	13N	2W	6000	Verde
13P1	Willow Ranch	16	21N	11W	5000	Williams
10R1	Woods Canyon	15	11N	13E	7640	Salt-Little Colorado--Discontinued
10S1	Workman Creek	33	6N	14E	6900	Salt

\* SOIL MOISTURE STATION ONLY

\*\* NUMBER INDICATES LOCATION OF SNOW COURSE WITHIN COORDINATE RECTANGLE.  
THUS 9N1 IS COURSE #1 IN COORDINATE RECTANGLE 9N.

\*\*\* ALL IN GILA AND SALT RIVER BASE AND MERIDIAN EXCEPT WHERE OTHERWISE  
INDICATED.

\*\*\*\* NEW MEXICO PRINCIPAL MERIDIAN

\*\*\*\*\* NAVAJO BASE

M SOIL MOISTURE STATION INSTALLED ON OR IN VICINITY OF SNOW COURSE.

§ UNSURVEYED

(p) STORAGE GAGE INSTALLED ON OR IN VICINITY OF SNOW COURSE.



## ARIZONA WATER SUPPLY OUTLOOK

APRIL 1, 1963

\* \* \* \* \*  
\*  
\* The Water Supply Outlook for Arizona is normal. \*  
\* Although runoff is expected to be much below \*  
\* average on most streams, reservoir storage is \*  
\* good in the major reservoirs. \*  
\*  
\* \* \* \* \*

SNOW COVER: Although a moderate storm occurred after the March 15 survey, it was not in evidence on April 1. Warm temperature and lack of additional precipitation is responsible for the meager snow cover. The only snow reported on April 1 was at the higher elevations. In the White Mountains above the 9000 foot level the snow cover is now 77% of average for this date. Moderate snow remains in the Mogollon area above 7600 feet.

RESERVOIR STORAGE: Water levels continue to drop in the major reservoirs serving central Arizona. Low runoff and heavy use for pre-irrigation is responsible. The Salt River Project Reservoirs still contain 119% of the April 1 average. San Carlos Reservoir also contains above average storage. Elsewhere in the state, stored water is low except in Lyman Reservoir which is twice average. Good storage in these large reservoirs is due to carry-over storage from last year. Lake Pleasant, Show Low Lake, and Watson Lake, are very low with very little chance of improving this year.

SOIL MOISTURE: At higher elevations, soil moisture has improved as a result of melting snow. At the intermediate and lower elevations, however, soils are dry.

STREAMFLOW AND WATER SUPPLY: March runoff was low on all the major streams in Arizona. Streamflow on the Gila River at the Head of the Safford Valley during March was 22,150 acre feet, or 85% of average. The Salt and Verde Rivers flowed 45,500 and 13,100 respectively; this is 61% and 19% of average.

Streamflow forecasts are low, ranging from 41% on the Verde River to 88% on the Gila River.

Generally speaking, water supplies should be adequate in the major irrigated areas this year. Considerable pumping, however, will be required in central Arizona.

1907

Vol. XXXVII

Part I

January 1907

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1907

THE JOURNAL OF THE ROYAL ANTHROPOLOGICAL INSTITUTE

Volume XXXVII, Part I, January 1907

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# STREAM FLOW FORECASTS - APRIL 1, 1963

The following summarized runoff forecasts are based principally on mountain snow cover and on the assumption that precipitation and temperature will be near average from the present time to the end of the forecast period. Appreciable deviations from normal of temperature and/or precipitation will correspondingly modify these forecasts.

SUB-WATERSHED, STREAM AND STATION	SEASONAL STREAM FLOW IN THOUSANDS OF ACRE FEET					
	FORECAST PERIOD - APRIL - MAY, INCLUSIVE					
	Forecast	Present	Measured Runoff			1943-57
	Runoff 1963	15-Year Average	1962	1961	1960	Average
Salt River at Intake	70	56	311.4	44.3	139.4	125.3
Tonto River above Roosevelt	4	49	9.7	2.5	6.4	8.2
Verde River above Horseshoe	23	41	57.7	32.0	24.1	56.5
Gila River at Virden	12	88	46.8	7.6	19.6	13.7
Gila River near Solomon	21	81	87.2	11.0	36.6	26.0
Frisco River at Clifton	11	80	42.2	6.5	17.4	13.7
Little Colorado River above Lyman Dam (April-June, Incl.)	2.0	42	22.2	0.7	6.8	4.8

Granite Creek is not expected to produce an appreciable amount of runoff this spring.

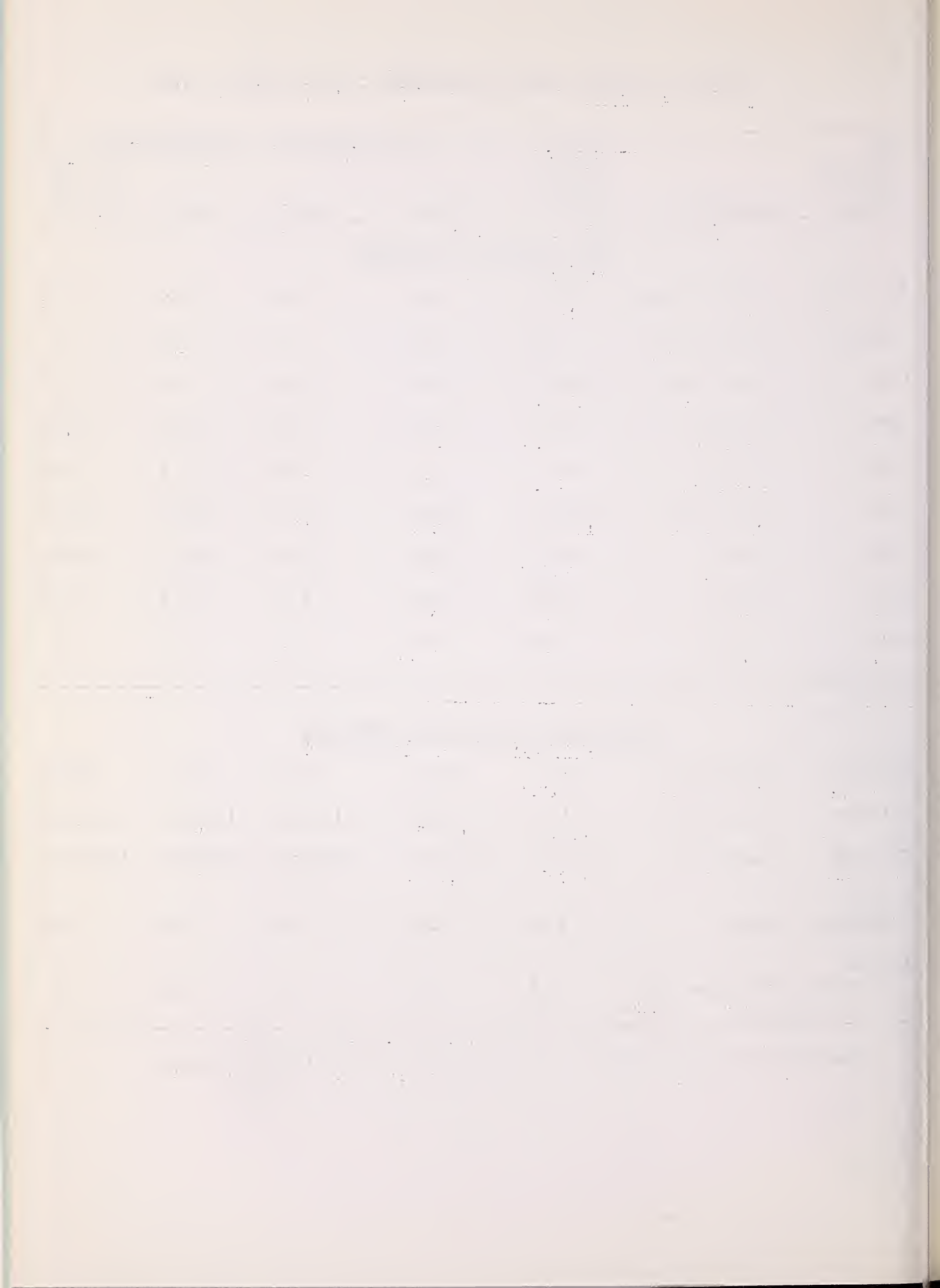




STATUS OF ARIZONA RESERVOIR STORAGE - ABOUT APRIL 1, 1963

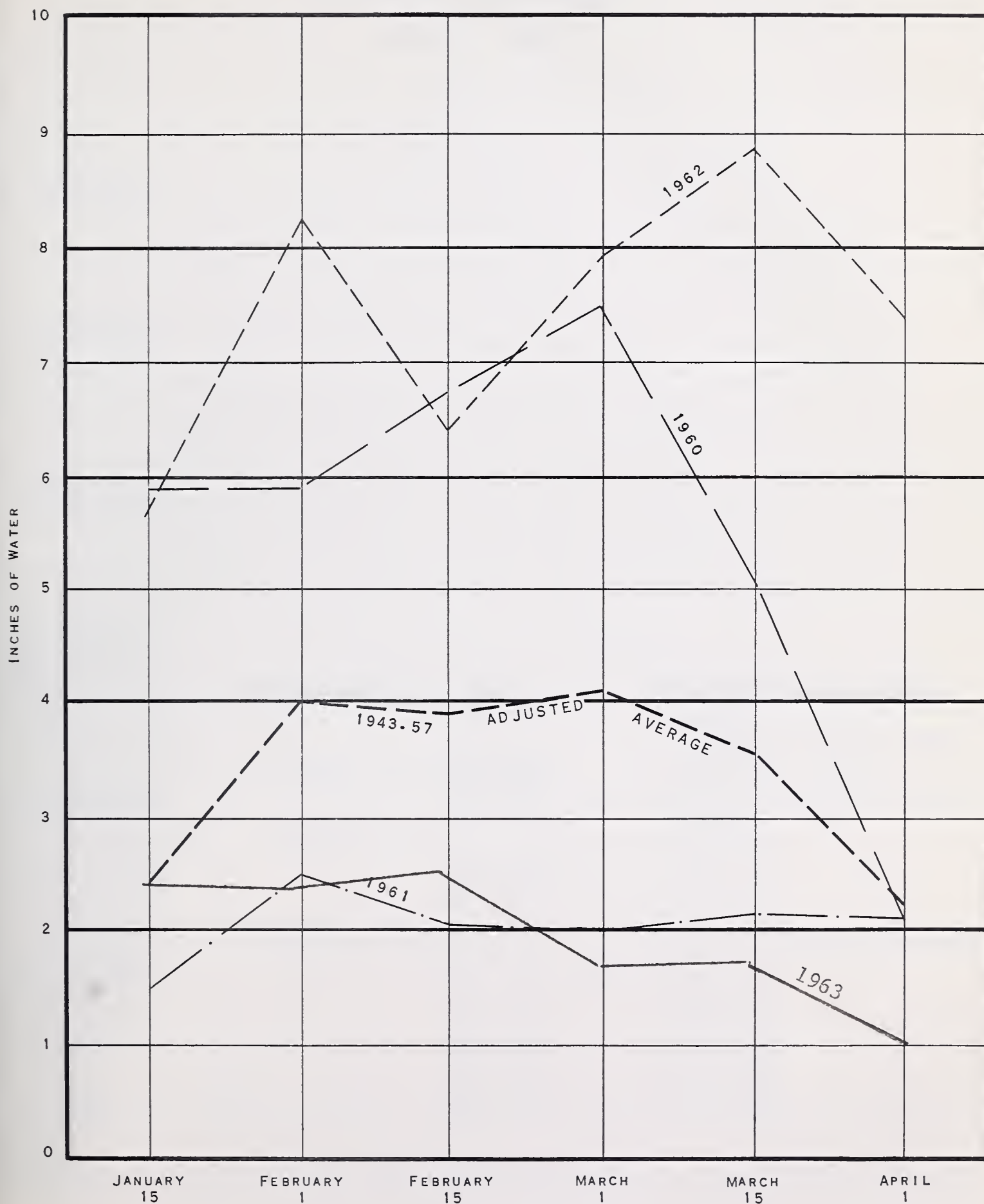
SUB- WATERSHED and/or STREAM	RESERVOIR	USABLE CAPACITY 1000s ACRE FT.	USABLE STORAGE - 1000s ACRE FEET			
			1963	1962	1961	15-Year Average 1943-57
GILA RIVER SUB-WATERSHED						
Agua Fria	Lake Pleasant	163.8	2.8	18.1	26.6	29.8
Granite	Watson Lake	4.7	0.7	---	---	---
Gila	San Carlos	1,206.0	120.8	154.1	0.4	107.9
Verde	Bartlett	179.5	30.0	69.1	29.4	70.9
Verde	Horseshoe	142.3	1.3	34.9	16.3	30.6*
Salt	Roosevelt	1,382.0	669.3	771.0	816.9	471.7
Salt	Apache	245.0	230.8	229.0	213.1	209.7
Salt	Canyon	58.0	52.0	53.8	45.3	46.3
Salt	Saguaro	70.0	65.9	63.7	63.2	49.6
LOWER COLORADO RIVER SUB-WATERSHED						
Colorado	Lake Havasu	619.4	554.4	559.0	570.7	582.8
Colorado	Lake Mohave	1,810.0	1,702.9	1,706.0	1,684.0	1,491.8*
Colorado	Lake Mead	27,207.0	21,864.0	18,041.0	18,208.0	16.438.0
Little Colorado	Lyman	30.6	13.9	5.9	6.8	6.8
Little Colorado	Show Low Lake	5.1	1.5	5.1	0.2	---

\* Average is for less than 15 years of record in the 1943-57 period.



# RELATIVE SNOW WATER ACCUMULATION ARIZONA

APRIL 1, 1963



*This graph represents the average snow water content on eleven selected snow courses on Arizona Sub-Watersheds.*

ANALYSIS





WATER SUPPLY INVENTORY  
SALT RIVER VALLEY SYSTEM  
APRIL 1, 1963

3,000,000

2,500,000

2,000,000

1,500,000

1,000,000

500,000

0

AVERAGE SUPPLY ON APRIL 1

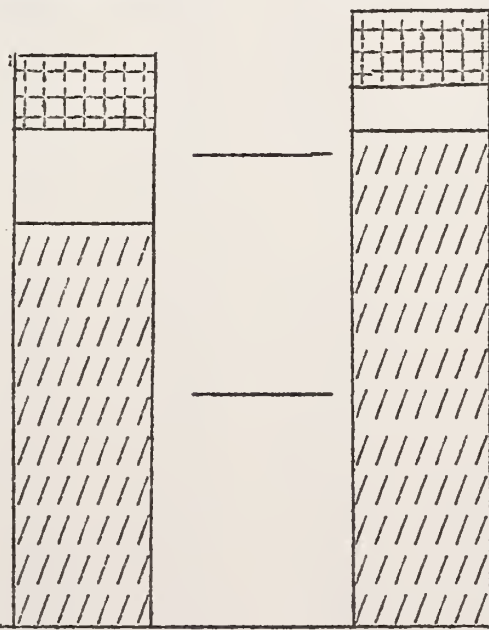
ANTICIPATED 1963 SUPPLY \*

Average Summer  
Runoff  
Average Spring  
Runoff

Average Storage

Average Summer  
Runoff  
Forecast Runoff  
(April - May)

Present Storage



\* Based on present Storage + Forecast Spring Runoff + Average Summer Runoff.



ARIZONA SNOW SURVEYS - ABOUT APRIL 1, 1963

SUB-WATERSHED and SNOW COURSE			SNOW COVER MEASUREMENTS					
			1963			PAST RECORD		
			Date of Survey	Snow Depth (In.)	Water Content (In.)	Water Content (Inches) 1943-57 Average		
No.	Elev.					1962	1961	
<u>GILA RIVER</u>								
Bear Wallow	10T1	8100	4/1	0	0.0	13.2	1.1	1.3 **
Beaver Head	9S6	8000	3/31	0	0.0	4.3	0.4	0.8
Coronado Trail	9S7	8000	4/1	0	0.0	0.9	0.0	1.1
Frisco Divide	8S1-M	8000	3/29	0	0.0	1.3	0.0	0.5
Ice King	8S6	8000	3/31	13	6.0	13.2	5.2	---
Inman	7S2	7800	4/1	0	0.0	0.0	T	0.0 **
Mogollon	8S2	7000	3/31	0	0.0	T	0.5	0.3 **
Nutrioso	9S4	8500	4/1	0	0.0	1.9	0.0	0.5
Redstone Trail	8S7	8600	3/31	15	6.0	14.0	5.7	---
Rose Canyon	10T2	7300	4/1	0	0.0	5.5	0.6	0.2 **
State Line	9S8	8000	3/29	0	0.0	0.8	0.0	0.5
<u>SALT RIVER</u>								
Baldy *	9S1	9125	3/28	8	3.1	17.4	4.9	4.2 **
Beaver Head	9S6	8000	3/31	0	0.0	4.3	0.4	0.8
Canyon Creek #2	10R7-M	7500	3/29	0	0.0	6.7	0.9	---
Coronado Trail	9S7	8000	4/1	0	0.0	0.9	0.0	1.1
Forest Dale	10R6	6430	3/29	0	0.0	0.0	0.4	0.0
Ft. Apache *	9R5	9160	3/28	17	5.4	16.9	5.1	5.6 **
Gentry	10R5	7600	3/29	0	0.0	5.3	1.3	0.8 **
Heber	10R4	7600	3/29	0	0.0	6.4	1.8	1.2 **
Maverick Fork	9S2	9050	3/28	10	3.8	19.6	4.9	6.0 **
McNary	9R2-M	7200	3/29	0	0.0	3.2	1.0	0.2
Milk Ranch	9R1	7000	3/29	0	0.0	0.0	0.7	0.0
Nutrioso	9S4	8500	4/1	0	0.0	1.9	0.0	0.5
Pacheta	9S5	7800	4/1	0	0.0	6.6	0.0	0.4 **
Workman Creek	10S1	6900	3/28	0	0.0	14.6	1.4	1.7 **
<u>VERDE RIVER</u>								
Camp Wood	12R1	5700	4/1	0	0.0	0.0	0.0	0.0 **
Casner Park	11R2-M	6930	3/27	0	0.0	7.8	2.3	1.4 **
Chalender	12P1-M	7100	4/1	0	0.0	4.2	0.9	1.6 **
Copper Basin Div.	12R6	6720	3/29	0	0.0	---	---	---
Fort Valley *	11P2	7350	3/31	0	0.0	4.6	2.3	1.4 **
Gaddes Canyon	12R4	7600	3/29	3	0.9	9.9	2.4	---
Happy Jack	11R5	7630	4/1	0	0.0	7.3	2.2	2.7 **
Iron Springs *	12R2	6200	3/30	0	0.0	0.0	No Survey	0.0 **
Mingus Mountain	12R3	7100	3/29	0	0.0	0.0	1.1	0.1 **
Mormon Lake *	11R4	7350	3/27	0	0.0	7.5	2.1	3.7 **
Mormon Mountain	11R3-M	7500	3/27	T	T	11.6	2.5	5.4 **
Munds Park	11R1-M	6500	3/27	0	0.0	1.8	1.8	1.4 **
Newman Park	11R6	6750	3/27	0	0.0	---	---	---
Snow Bowl	11P4	10260	No	Report		20.0	7.0	---
White Spar	12R5	6000	3/29	0	0.0	---	---	---

\* On Adjacent Drainage

\*\* 1943-57 Adjusted Average





ARIZONA SNOW SURVEYS - ABOUT APRIL 1, 1963

SUB-WATERSHED and SNOW COURSE			SNOW COVER MEASUREMENTS					
			1963			PAST RECORD		
			Date	Snow	Water	Water Content (Inches)		
			of	Depth	Content	1943-57		
No.	Elev.		Survey	(In.)	(In.)	1962	1961	Average
<u>WILLIAMS RIVER</u>								
Camp Wood *	12R1	5700	4/1	0	0.0	0.0	0.0	0.0 **
Copper Basin Div.*	12R6	6720	3/29	0	0.0	---	---	---
Iron Springs	12R2	6200	3/30	0	0.0	0.0	No Survey	0.0 **
Willow Ranch	13P1	5000	4/1	0	0.0	0.0	0.0	0.0
<u>LOWER COLORADO RIVER</u>								
Bright Angel	12N1	8400	No	Survey		13.8	No Survey	10.4 **
Chalender *	12P1-M	7100	4/1	0	0.0	4.2	0.9	1.6 **
Fort Valley	11P2	7350	3/31	0	0.0	4.6	2.3	1.4 **
Grand Canyon	11P1	7500	3/31	0	0.0	1.2	2.1	1.4 **
<u>LITTLE COLORADO RIVER</u>								
Baldy	9S1	9125	3/28	8	3.1	17.4	4.9	4.2 **
Canyon Creek #2	10R7-M	7500	3/29	0	0.0	6.7	0.9	---
Forest Dale	10R6	6430	3/29	0	0.0	0.0	0.4	0.0
Ft. Apache	9R5	9160	3/28	17	5.4	16.9	5.1	5.6 **
Fort Valley	11P2	7350	3/31	0	0.0	4.6	2.3	1.4 **
Gentry	10R5	7600	3/29	0	0.0	5.3	1.3	0.8 **
Happy Jack *	11R5	7630	4/1	0	0.0	7.3	2.2	2.7 **
Heber	10R4	7600	3/29	0	0.0	6.4	1.8	1.2 **
McNary	9R2-M	7200	3/29	0	0.0	3.2	1.0	0.2
Mormon Lake	11R4	7350	3/27	0	0.0	7.5	2.1	3.7 **
Mormon Mountain	11R3-M	7500	3/27	T	T	11.6	2.5	5.4 **
Nutrioso	9S4	8500	4/1	0	0.0	1.9	0.0	0.5

\* On Adjacent Drainage

\*\* 1943-57 Adjusted Average



## LIST OF SNOW SURVEYORS

<u>SNOW COURSE</u>	<u>SURVEYOR</u>
Baldy -----	SCS and SRVWUA
Bear Wallow -----	Forest Service - Allan Hinds
Beaver Head -----	N. A. Josh
Bright Angel -----	National Park Service - Vern Ruesch
Camp Wood -----	Fred T. L. Merritt
Canyon Creek #2 -----	SCS and SRVWUA
Casner Park -----	SCS and SRVWUA
Chalender -----	Forest Service - MacIntyre
Copper Basin Divide ---	SCS - Bill Gray
Coronado Trail -----	Forest Service - R.P. Julander & W.L. Sanders
Forest Dale -----	Fort Apache Reservation - Boyer & Endfield
Ft. Apache -----	SCS and SRVWUA
Fort Valley -----	Rocky Mountain Forest & Range Experiment Station
Frisco Divide -----	Forest Service - Joe Clayton & V.F. Laney
Gaddes Canyon -----	SCS - Bill Gray
Gentry -----	SCS and SRVWUA
Grand Canyon -----	National Park Service - Paul Mathis
Happy Jack -----	Emil O. Ryberg
Heber -----	SCS and SRVWUA
Ice King -----	James R. Wray
Inman -----	C. H. McCauley
Iron Springs -----	Ernest Saxby
Maverick Fork -----	SCS and SRVWUA
McNary -----	Fort Apache Reservation - Boyer & Endfield
Milk Ranch -----	Fort Apache Reservation - Boyer & Endfield
Mingus Mountain -----	SCS - Bill Gray
Mogollon -----	James R. Wray
Mormon Lake -----	SCS and SRVWUA
Mormon Mountain -----	SCS and SRVWUA
Munds Park -----	SCS and SRVWUA
Newman Park -----	SCS and SRVWUA
Nutriosio -----	Forest Service - R. P. Julander & W.L. Sanders
Pacheta -----	Bob Curlee
Redstone Trail -----	James R. Wray
Rose Canyon -----	Forest Service - Allan Hinds
Snow Bowl -----	Forest Service - Jay Shoemaker
State Line -----	Forest Service - Joe Clayton & V.F. Laney
White Spar -----	SCS - Bill Gray
Willow Ranch -----	Tiny Miller
Workman Creek -----	Rocky Mountain Forest & Range Experiment Station





# The Following Organizations Cooperate in the Arizona Snow Survey Work

## FEDERAL

Department of Agriculture

Soil Conservation Service

Forest Service

Apache Forest

Coconino Forest

Coronado Forest

Gila Forest

Kaibab Forest

Prescott Forest

Rocky Mountain Forest and Range Experiment Station

Tonto Forest

Department of Commerce

Weather Bureau

Arizona Section

Department of Interior

Bureau of Reclamation

Region III

Geological Survey

Arizona District

Bureau of Indian Affairs

Fort Apache Reservation

San Carlos Irrigation Project

National Park Service

Grand Canyon National Park

Gila Water Commissioner

Safford, Arizona

## STATE

Arizona Agricultural Experiment Station

## IRRIGATION PROJECTS

Salt River Valley Water Users' Association

Phoenix, Arizona

San Carlos Irrigation and Drainage District

Coolidge, Arizona

## PRIVATE

Southwest Lumber Mills, Inc.

McNary, Arizona

Other organizations and individuals furnish valuable information for the snow survey reports. Their cooperation is gratefully acknowledged.

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with the Snow Survey"*